hvec.ST25

SEQUENCE LISTING

<110> FRANCE HYBRIDES

<120> Process for producing a mammal rendered resistant to an infection by an alphaherpesvirus by germinal transgenesis and mammal obtained by the employment of this process.

<130> hvec

<150> Fr02 12775
<151> 2002-10-15

<160> 4

<170> PatentIn version 3.1

<210> 1
<211> 440
<212> PRT
<213> artificial sequence

<220>
<223> Artificial protein fusing the extracellular domain of the protein HveM of the mouse and the crystallisable fragment of the human immunoglobulin G1

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Thr	Asp	Asn	Thr	Phe	Arg	Leu	Val	Pro	Cys	Val	Phe	Leu	Leu	Asn	Leu
			20					25					30		
Leu	Gln	Arg	Ile	Ser	Ala	Gln	Pro	Ser	Cys	Arg	Gln	Glu	Glu	Phe	Leu
		35					40					45			
Val	Gly	Asp	Glu	Cys	Cys	Pro	Met	Cys	Asn	Pro	Gly	Try	His	Val	Lys
	50					55					60				

Gln	Val	Cys	Ser	Glu	His	Thr	Gly	Thr	Val	Cys	Ala	Pro	Cys	Pro	Pro
65					70					75					80
Gln	Thr	Tyr	Thr	Ala	His	Ala	Asn	Gly	Leu	Ser	Lys	Cys	Leu	Pro	Cys
				85					90					95	
Gly	Val	Cys	Asp	Pro	Asp	Met	Gly	Leu	Leu	Thr	Trp	Gln	Glu	Cys	Ser
			100					105					110		
Ser	Trp	Lys	Asp	Thr	Val	Cys	Arg	Cys	Ile	Pro	Gly	Tyr	Phe	Cys	Glu
		115					120					125			
Asn	Gln	Asp	Gly	Ser	His	Cys	Ser	Thr	Cys	Leu	Gln	His	Thr	Thr	Cys
	130					135					140				
Pro	Pro	Gly	Gln	Arg	Val	Glu	Lys	Arg	Gly	Thr	His	Asp	Gln	Asp	Thr
145					150					155					160
Val	Cys	Ala	Asp	Cys	Leu	Thr	Gly	Thr	Phe	Ser	Leu	Gly	Gly	Thr	Gln
				165					170					175	
Glu	Glu	Cys	Leu	Pro	Trp	Thr	Asn	Cys	Ser	Ala	Phe	Gln	Gln	Glu	Val
			180					185					190		
Arg	Arg	Gly	Thr	Asn	Ser	Thr	Asp	Thr	Thr	Cys	Ser	Ser	Asp	Pro	Glu
		195					200					205			
Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala
	210					215					220				
Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro
225					230					235					240
Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val
				245					250					255	
Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val
			260					265				270			
Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln
		275					280					285			
Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln
	290					295					300				
Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala
305					310					315					320
Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro
				325					330					335	
Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr
			340					345					350		
Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser

355 360 365

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
370 375 380

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
385 390 395 400

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
405 410 415

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
420 425 430

Ser Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 2

<211> 581

<212> PRT

<213> artificial sequence

<220>

<223> Artificial protein fusing the extracellular domain (domains V-C-C) of the protein HveC of the pig and the crystallisable fragment of the human immunoglobulin G1

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Met Ala Arg Met Gly Leu Ala Gly Ala Ala Gly Arg Trp Trp Gly Leu
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Ala Leu Gly Leu Thr Ala Phe Phe Leu Pro Gly Ala His Thr Gln Val
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Val Gln Val Asn Asp Ser Met Tyr Gly Phe Ile Gly Thr Asp Val Val
35 40 45

Leu His Cys Ser Phe Ala Asn Pro Leu Pro Gly Val Lys Ile Thr Gln
50 55 60

Val Thr Trp Gln Lys Ala Thr Asn Gly Ser Lys Gln Asn Val Ala Ile
65 70 75 80

Tyr Asn Pro Ala Met Gly Val Ser Val Leu Ala Pro Tyr Arg Glu Arg
85 90 95

Val Glu Phe Leu Arg Pro Ser Phe Thr Asp Gly Thr Ile Arg Leu Ser
100 105 110

Arg Leu Glu Leu Glu Asp Glu Gly Val Tyr Ile Cys Glu Phe Ala Thr
115 120 125

Phe	Pro	Ala	Gly	Asn	Arg	Glu	Ser	Gln	Leu	Asn	Leu	Thr	Val	Met	Ala
	130					135					140				
Lys	Pro	Thr	Asn	Trp	Ile	Glu	Gly	Thr	Gln	Ala	Val	Leu	Arg	Ala	Lys
145					150					155					160
Lys	Gly	Lys	Asp	Asp	Lys	Val	Leu	Val	Ala	Thr	Cys	Thr	Ser	Ala	Asn
				165					170					175	
Gly	Lys	Pro	Pro	Ser	Val	Val	Ser	Trp	Glu	Thr	His	Leu	Lys	Gly	Glu
			180					185					190		
Ala	Glu	Tyr	Gln	Glu	Ile	Arg	Asn	Pro	Asn	Gly	Thr	Val	Thr	Val	Ile
		195					200					205			
Ser	Arg	Tyr	Arg	Leu	Val	Pro	Ser	Arg	Glu	Asp	His	Arg	Gln	Ser	Leu
	210					215					220				
Ala	Cys	Ile	Val	Asn	Tyr	His	Met	Asp	Arg	Phe	Arg	Glu	Ser	Leu	Thr
225					230					235					240
Leu	Asn	Val	Gln	Tyr	Glu	Pro	Glu	Val	Thr	Ile	Glu	Gly	Phe	Asp	Gly
				245					250					255	
Asn	Trp	Tyr	Leu	Gln	Arg	Met	Asp	Val	Lys	Leu	Thr	Cys	Lys	Ala	Asp
			260					265					270		
Ala	Asn	Pro	Pro	Ala	Thr	Glu	Tyr	His	Trp	Thr	Thr	Leu	Asn	Gly	Ser
		275					280					285			
Leu	Pro	Lys	Gly	Val	Glu	Ala	Gln	Asn	Arg	Thr	Leu	Phe	Phe	Arg	Gly
	290					295					300				
Pro	Ile	Asn	Tyr	Ser	Met	Ala	Gly	Thr	Tyr	Ile	Cys	Glu	Ala	Thr	Asn
305					310					315					320
Pro	Ile	Gly	Thr	Arg	Ser	Gly	Gln	Val	Glu	Val	Asn	Ile	Thr	Glu	Phe
				325					330					335	
Pro	Tyr	Thr	Pro	Ser	Pro	Pro	Glu	His	Ala	Asp	Pro	Glu	Glu	Pro	Lys
			340					345					350		
Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu
		355					360					365			
Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr
	370					375					380				
Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val
385					390					395					400
Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val
				405					410					415	
Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser

			420					425					430		
Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu
		435					440					445			
Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala
	450					455					460				
Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro
465					470					475					480
Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln
				485					490					495	
Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala
			500					505					510		
Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr
		515					520					525			
Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu
	530					535					540				
Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser
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Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser
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<210> 3

<211> 376

<212> PRT

<213> artificial sequence

<220>

<223> Artificial protein fusing the V domain of the protein HveC of the pig and the crystallisable fragment of the porcine immunoglobulin G1

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			20					25					30		

Val	Gln	Val	Asn	Asp	Ser	Met	Tyr	Gly	Phe	Ile	Gly	Thr	Asp	Val	Val
		35					40					45			
Leu	His	Cys	Ser	Phe	Ala	Asn	Pro	Leu	Pro	Gly	Val	Lys	Ile	Thr	Gln
	50					55					60				
Val	Thr	Trp	Gln	Lys	Ala	Thr	Asn	Gly	Ser	Lys	Gln	Asn	Val	Ala	Ile
65					70					75					80
Tyr	Asn	Pro	Ala	Met	Gly	Val	Ser	Val	Leu	Ala	Pro	Tyr	Arg	Glu	Arg
				85					90					95	
Val	Glu	Phe	Leu	Arg	Pro	Ser	Phe	Thr	Asp	Gly	Thr	Ile	Arg	Leu	Ser
			100					105					110		
Arg	Leu	Glu	Leu	Glu	Asp	Glu	Gly	Val	Tyr	Ile	Cys	Glu	Phe	Ala	Thr
		115					120					125			
Phe	Pro	Ala	Gly	Asn	Arg	Glu	Ser	Gln	Leu	Asn	Leu	Thr	Val	Met	Gly
	130					135					140				
Ser	Val	Gly	Ile	His	Gln	Pro	Gln	Thr	Cys	Pro	Ile	Cys	Pro	Gly	Cys
145					150					155					160
Glu	Val	Ala	Gly	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Lys	Pro	Lys	Asp
				165					170					175	
Thr	Leu	Met	Ile	Ser	Gln	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp
			180					185					190		
Val	Ser	Lys	Glu	His	Ala	Glu	Val	Gln	Phe	Ser	Trp	Tyr	Val	Asp	Gly
		195					200					205			
Val	Glu	Val	His	Thr	Ala	Glu	Thr	Arg	Pro	Lys	Glu	Glu	Gln	Phe	Asn
	210					215					220				
Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Pro	Ile	Gln	His	Gln	Asp	Trp
225					230					235					240
Leu	Lys	Gly	Lys	Glu	Phe	Lys	Cys	Lys	Val	Asn	Asn	Val	Asp	Leu	Pro
				245					250					255	
Ala	Pro	Ile	Thr	Arg	Thr	Ile	Ser	Lys	Ala	Ile	Gly	Gln	Ser	Arg	Glu
			260					265					270		
Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Pro	Ala	Glu	Glu	Leu	Ser	Arg	Ser
		275					280					285			
Lys	Val	Thr	Leu	Thr	Cys	Leu	Val	Ile	Gly	Phe	Tyr	Pro	Pro	Asp	Ile
	290					295					300				
His	Val	Glu	Trp	Lys	Ser	Asn	Gly	Gln	Pro	Glu	Pro	Glu	Asn	Thr	Tyr
305					310					315					320

Arg	Thr	Thr	Pro	Pro	Gln	Gln	Asp	Val	Asp	Gly	Thr	Phe	Phe	Leu	Tyr
				325					330					335	
Ser	Lys	Leu	Ala	Val	Asp	Lys	Ala	Arg	Trp	Asp	His	Gly	Asp	Lys	Phe
			340					345					350		
Glu	Cys	Ala	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys
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Ser	Ile	Ser	Lys	Thr	Gln	Gly	Lys								
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<210> 4

<211> 578

<212> PRT

<213> artificial sequence

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<223> Artificial protein fusing the extracellular domain (domains V-C-C) of the protein HveC of the pig and the crystallisable fragment of the porcine immunoglobulin G1

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Ala	Leu	Gly	Leu	Thr	Ala	Phe	Phe	Leu	Pro	Gly	Ala	His	Thr	Gln	Val
			20					25					30		
Val	Gln	Val	Asn	Asp	Ser	Met	Tyr	Gly	Phe	Ile	Gly	Thr	Asp	Val	Val
		35					40					45			
Leu	His	Cys	Ser	Phe	Ala	Asn	Pro	Leu	Pro	Gly	Val	Lys	Ile	Thr	Gln
	50					55					60				
Val	Thr	Trp	Gln	Lys	Ala	Thr	Asn	Gly	Ser	Lys	Gln	Asn	Val	Ala	Ile
65					70					75					80
Tyr	Asn	Pro	Ala	Met	Gly	Val	Ser	Val	Leu	Ala	Pro	Tyr	Arg	Glu	Arg
				85					90					95	
Val	Glu	Phe	Leu	Arg	Pro	Ser	Phe	Thr	Asp	Gly	Thr	Ile	Arg	Leu	Ser
			100					105					110		
Arg	Leu	Glu	Leu	Glu	Asp	Glu	Gly	Val	Tyr	Ile	Cys	Glu	Phe	Ala	Thr
		115					120					125			
Phe	Pro	Ala	Gly	Asn	Arg	Glu	Ser	Gln	Leu	Asn	Leu	Thr	Val	Met	Ala
	130					135					140				

Lys	Pro	Thr	Asn	Trp	Ile	Glu	Gly	Thr	Gln	Ala	Val	Leu	Arg	Ala	Lys
145					150					155					160
Lys	Gly	Lys	Asp	Asp	Lys	Val	Leu	Val	Ala	Thr	Cys	Thr	Ser	Ala	Asn
				165					170					175	
Gly	Lys	Pro	Pro	Ser	Val	Val	Ser	Trp	Glu	Thr	His	Leu	Lys	Gly	Glu
			180					185					190		
Ala	Glu	Tyr	Gln	Glu	Ile	Arg	Asn	Pro	Asn	Gly	Thr	Val	Thr	Val	Ile
		195					200					205			
Ser	Arg	Tyr	Arg	Leu	Val	Pro	Ser	Arg	Glu	Asp	His	Arg	Gln	Ser	Leu
	210					215					220				
Ala	Cys	Ile	Val	Asn	Tyr	His	Met	Asp	Arg	Phe	Arg	Glu	Ser	Leu	Thr
225					230					235					240
Leu	Asn	Val	Gln	Tyr	Glu	Pro	Glu	Val	Thr	Ile	Glu	Gly	Phe	Asp	Gly
				245					250					255	
Asn	Trp	Tyr	Leu	Gln	Arg	Met	Asp	Val	Lys	Leu	Thr	Cys	Lys	Ala	Asp
			260					265					270		
Ala	Asn	Pro	Pro	Ala	Thr	Glu	Tyr	His	Trp	Thr	Thr	Leu	Asn	Gly	Ser
		275					280					285			
Leu	Pro	Lys	Gly	Val	Glu	Ala	Gln	Asn	Arg	Thr	Leu	Phe	Phe	Arg	Gly
	290					295					300				
Pro	Ile	Asn	Tyr	Ser	Met	Ala	Gly	Thr	Tyr	Ile	Cys	Glu	Ala	Thr	Asn
305					310					315					320
Pro	Ile	Gly	Thr	Arg	Ser	Gly	Gln	Val	Glu	Val	Asn	Ile	Thr	Glu	Phe
				325					330					335	
Pro	Tyr	Thr	Pro	Ser	Pro	Pro	Glu	His	Gly	Ser	Val	Gly	Ile	His	Gln
			340					345					350		
Pro	Gln	Thr	Cys	Pro	Ile	Cys	Pro	Gly	Cys	Glu	Val	Ala	Gly	Pro	Ser
		355					360					365			
Val	Phe	Ile	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Gln
	370					375					380				
Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Lys	Glu	His	Ala
385					390					395					400
Glu	Val	Gln	Phe	Ser	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Thr	Ala
				405					410					415	
Glu	Thr	Arg	Pro	Lys	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val
			420					425					430		
Ser	Val	Leu	Pro	Ile	Gln	His	Gln	Asp	Trp	Leu	Lys	Gly	Lys	Glu	Phe
		435					440					445			

Lys Cys Lys Val Asn Asn Val Asp Leu Pro Ala Pro Ile Thr Arg Thr
450 455 460

Ile Ser Lys Ala Ile Gly Gln Ser Arg Glu Pro Gln Val Tyr Thr Leu
465 470 475 480

Pro Pro Pro Ala Glu Glu Leu Ser Arg Ser Lys Val Thr Leu Thr Cys
485 490 495

Leu Val Ile Gly Phe Tyr Pro Pro Asp Ile His Val Glu Trp Lys Ser
500 505 510

Asn Gly Gln Pro Glu Pro Glu Asn Thr Tyr Arg Thr Thr Pro Pro Gln
515 520 525

Gln Asp Val Asp Gly Thr Phe Phe Leu Tyr Ser Lys Leu Ala Val Asp
530 535 540

Lys Ala Arg Trp Asp His Gly Asp Lys Phe Glu Cys Ala Val Met His
545 550 555 560

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Ile Ser Lys Thr Gln
565 570 575

Gly Lys